Cisco Small Business NSS2000 Series Network Storage System

Cisco NSS2000 2-Bay Gigabit Storage System Chassis
Cisco NSS2050 2-Bay Gigabit Storage System Chassis with Two 250-Gigabyte Hard Disk Drives

As small companies move from paper-based processes to digital applications, they become more vulnerable to the huge costs and disruptions that can result from losing vital business information. Small businesses are also challenged to comply with growing regulatory requirements governing the storage of customer information. They need strong data security, advanced encryption capabilities, and tools to control the way users access sensitive data. The common data storage solutions used in many small businesses—backup disks and flash drives, primitive tape backup systems, or simple hard drives directly attached to employee PCs—cannot provide the advanced security and control features that today's small businesses require. Such ad hoc storage solutions can also diminish productivity by impeding employees' ability to easily transfer and share files.

The Cisco Small Business NSS2000 Series Network Storage System

The Cisco® Small Business NSS2000 Series Network Storage System provides the robust security and advanced data backup capabilities your business needs, at a price small companies can afford. With support for hundreds of gigabytes of data and up to 15 concurrent users per chassis, the Cisco Small Business NSS2000 Series provides the ideal solution for storing, sharing, and archiving your mission-critical business information. And unlike entry-level network-attached storage (NAS) systems, the Cisco Small Business NSS2000 Series delivers the advanced backup, encryption, user authentication, and high availability you need to protect your business.

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The Cisco Small Business NSS2000 Series includes two options:

- The Cisco Small Business NSS2000 2-bay Gigabit chassis, which supports any approved hard disk drive
- The Cisco Small Business NSS2050 2-bay Gigabit chassis, which includes two 250 gigabyte hard disk drives, for a total capacity of 500 gigabytes

Both models provide a wealth of features in a desktop-size system designed specifically for small businesses. And both models give you the flexibility to configure the system without any connected drives, to reconfigure it at any time, and to link multiple Cisco NAS devices together, providing a solution that can grow with your business.

You can use the Cisco Small Business NSS2000 Series to:

- Automatically back up important information from every PC and server in your business
- Provide centralized storage and sharing of important files
- Employ Continuous Data Protection (CDP) to automatically back up every version of every file saved by employees, allowing you to easily restore data
- Store and archive digital video from your video surveillance system

Features and Benefits

The Cisco Small Business NSS2000 Series Network Storage System provides:

- **Robust reliability:** Traditional small business NAS systems require each hard drive to run its own operating system software, making them inherently less stable. The Cisco Small Business NSS2000 Series integrates the Linux OS that controls the storage system into the chassis itself, ensuring that your business remains protected even if an individual hard drive fails.
- **Maximum flexibility:** The intelligent Cisco Small Business NSS2000 Series chassis gives you the flexibility to configure the system without any connected drives, to reconfigure it at any time, and to link multiple Cisco NAS chassis together, providing a solution that can grow with your business.
- **Broad compatibility:** The Cisco Small Business NSS2000 Series supports a variety of data storage schemes (Redundant Array of Independent Disks [RAID0, RAID1], “just a bunch of disks” [JBOD]) and file systems, and allows you to link Windows-based users, Mac users, Unix/Linux users, and FTP clients into a single data storage system, providing a complete storage solution for virtually any business environment.
- **Advanced storage capabilities:** The device’s rich network storage features include support for the Self-Monitoring, Analysis, and Reporting Technology (SMART) monitoring system for hard disks, file journaling, and virtualization of RAID storage systems across Cisco NAS products giving you a full suite of tools to create a robust file-sharing and data backup system for your business.
- **Strong security:** The Cisco Small Business NSS2000 Series supports a variety of security features to protect your data and help you comply with regulatory standards, including file encryption support, Advanced Encryption Standard (AES) file-based disk encryption, virtual LANs (VLANs), and user authentication and access control.
- **Reduced costs:** By integrating the operating system into the chassis, instead of into individual hard drives, the solution eliminates the need to purchase and maintain third-party OS licenses, upgrades, or accessories for each hard drive in the system.

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- **Out-of-the-box compatibility with other business applications:** The Cisco Small Business NSS2000 Series is designed to fully integrate with other Cisco Small Business Series products in a single, easy-to-manage network environment. For example, the solution provides the ideal data storage foundation for Cisco Small Business IP video surveillance and CDP applications.

Product Specifications

Table 1 gives the specifications for the Cisco Small Business NSS2000. Table 2 gives the specifications for the Cisco Small Business NSS2050.

Table 1. Cisco NSS2000 Specifications

Specifications	
Model	NSS2000 2-Bay Gigabit Network Storage System Chassis
System memory	128 MB synchronous dynamic RAM (SDRAM)
Flash memory	256 MB internal flash memory
Encryption	AES 256
Power supply	60W, 12V external AC power
Serial Advanced Technology Attachment (SATA) drive bays	Support for up to 2 internal SATA hard disk drives (HDDs) with hot-swap capability
LAN ports	One 10/100/1000 Mbps auto medium dependent interface (MDI) and MDI crossover (MDI-X)
Ports	2 AUX ports (supports USB flash disk for configuration backup only) 1 UPS-USB port (APC Smart-UPS only)
Temperature	Internal thermal temperature sensors for automatic fan control
Buttons	Power, System Reset/Network Default Settings Restore
LEDs	Unit Power, LAN Link, System Error, Hard Disk Drive Activity (2), Hard Disk Drive Error (2)
Operating system	Linux 2.6
Mean time between failures (MTBF)	Calculated 300,000 hours
Power consumption	16W with no hard disk drives; 38W with two 250-GB SATA hard disk drives (Power consumption varies depending on the number and type of hard disk drives installed.)
Form factor	Desktop form factor
Product Warranty	3-year limited hardware warranty with return to factory replacement and 90-day limited software warranty
Network Attached Storage Features	
Supported RAID levels	RAID0 (striping), RAID1 (mirroring)
JBOD	Independent disk linear concatenation
Intelligent drive	Intelligent SATA HDD spin-up/spin-down with built-in hysteresis to avoid HDD power up/down “flapping”
File and Storage System Support	
Server Message Blocks (SMB)/Common Internet File System (CIFS)	File sharing for Microsoft Windows, Mac OS X, and Unix/Linux (using Samba client) systems using SMB or CIFS
Network File System (NFS)	File sharing for Unix/Linux systems via NFS v3
FTP/Secure FTP (FTPS)	File sharing via FTP. Secure sessions supported via FTP over SSL.
Journaled file system	XFS
Unified file locking	Provides common file-locking mechanism that allows simultaneous, multiprotocol access to common shares by Windows/Max (CIFS), Unix/Linux (NFS), and FTP.
Virtualization	Supports virtualization of RAID sets across multiple chassis (requires at least 1 NSS6000/NSS6100 on the same network). Supports up to 4 exported RAID sets per master unit.

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Distributed File System (DFS)	Use multiple NAS systems as a single system via DFS
Security Features	
On-disk file	On-disk file encryption (AES 256)
VLANs	Port and 802.1Q/p
Access control lists (ACLs)	Windows-like ACLs (user, group, access and filters)
Network filtering	MAC/IP address filtering
LAN Network Features	
VLANs	802.1Q/p
Quality of service (QoS)	802.1p
Jumbo frame	Up to 9-KB jumbo frames

Table 2. Cisco NSS2050 Specifications

Specifications	
Model	NSS2050 2-Bay Gigabit Network Storage System Chassis with Two 250-GB HDDs
System memory	128 MB SDRAM
Flash memory	256 MB internal flash memory
Encryption	AES 256
Power supply	60W, 12V external AC power
SATA drive bays	Support for up to 2 internal SATA HDDs with hot-swap capability
LAN ports	One 10/100/1000 Mbps auto MDI/MDI-X
Ports	2 AUX ports (supports USB flash disk for configuration backup only) 1 UPS-USB port (APC Smart-UPS only)
Temperature	Internal thermal temperature sensors for automatic fan control
Buttons	Power, System Reset/Network Default Settings Restore
LEDs	Unit Power, LAN Link, System Error, Hard Disk Drive Activity (2), Hard Disk Drive Error (2)
Operating system	Linux 2.6
MTBF	Calculated 300,000 hours (chassis)
Power consumption	16W with no hard disk drives; 38W with two 250GB SATA hard disk drives (Power consumption varies depending on the number and type of hard disk drives installed.)
Form factor	Desktop form factor
Warranty	3 years
Network Attached Storage Features	
Supported RAID levels	RAID0 (striping), RAID1 (mirroring)
JBOD	Independent disk linear concatenation
Intelligent drive	Intelligent SATA HDD spin-up/spin-down with built-in hysteresis to avoid HDD power up/down “flapping”
File and Storage System Support	
SMB/CIFS	File sharing for Microsoft Windows, Mac OS X, and Unix/Linux (using Samba client) systems using SMB or CIFS
NFS	File sharing for Unix/Linux systems via NFS v3
FTP/FTPS	File sharing via FTP. Secure sessions supported via FTP over SSL.
Journaled file system	XFS
Unified file locking	Provides common file-locking mechanism that allows simultaneous, multiprotocol access to common shares by Windows/Mac (CIFS), Unix/ Linux (NFS), and FTP.
Virtualization	Supports virtualization of RAID sets across multiple chassis (requires at least 1 NSS6000/NSS6100 on the same network). Supports up to 4 exported RAID sets per master unit.
DFS	Use multiple NAS systems as a single system via DFS

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Security Features	
On-disk file	On-disk file encryption (AES 256)
VLANs	Port and 802.1Q/p
ACLs	Windows-like ACLs (user, group, access, and filters)
Network filtering	MAC/IP address filtering
LAN Network Features	
VLANs	802.1Q/p
QoS	802.1p
Jumbo frame	Up to 9-KB jumbo frames

Ordering information for the Cisco Small Business Network Storage System

To order, find a Cisco Partner near you: http://www.cisco.com/go/partnerlocator.

Table 3. Ordering Information

Part Number	Description
NSS2000	2-Bay Desktop Gigabit Network Storage System
NSS2050	2-Bay Desktop Gigabit Network Storage System with (2) 250GB Hard Drives preconfigured in RAID1
Complimentary/Optional Product(s)	
Cisco Small Business Continuous Data Protection: Supports synchronized and scheduled backups that can be customized for high- and low-priority files	
LBACDP03	3 user license model
LBACDP15	15 user license model
LBACDP25	25 user license model

Cisco Limited Warranty for Cisco Small Business Series Products

This Cisco Small Business product comes with 3-year limited hardware warranty with return to factory replacement and a 90-day limited software warranty. In addition, Cisco offers software application updates for bug fixes and telephone technical support at no charge for the first 12 months following the date of purchase. To download software updates, go to: http://www.cisco.com/go/smallbiz.

Product warranty terms and other information applicable to Cisco products are available at http://www.cisco.com/go/warranty.

A Proven Partner for Your Business

When it comes to the technology that keeps your employees, suppliers, and customers securely connected, it has to work. As the leader in networking and communications, Cisco is already helping small businesses around the world work better. And you can rely on us to help your business too.

With Cisco Small Business Solutions, you get the networking and communications technology you need, when and how you need it, so you can get more done in less time. We offer a broad range of small business products, which means that we're ready to be your technology partner—both today and as you grow.

You'll work with a local business partner who understands your unique needs and can design, install, and maintain a secure, reliable network that you can afford. A network that's backed by Cisco, is customized especially for your needs today, and offers a clear path to tomorrow.

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Cisco Small Business Solutions: Technology you can trust to help your business succeed.

For More Information

For more information about the Cisco Small Business NSS2000 Series Network Storage System, visit http://www.cisco.com/smallbusiness.

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